FIG. 1A

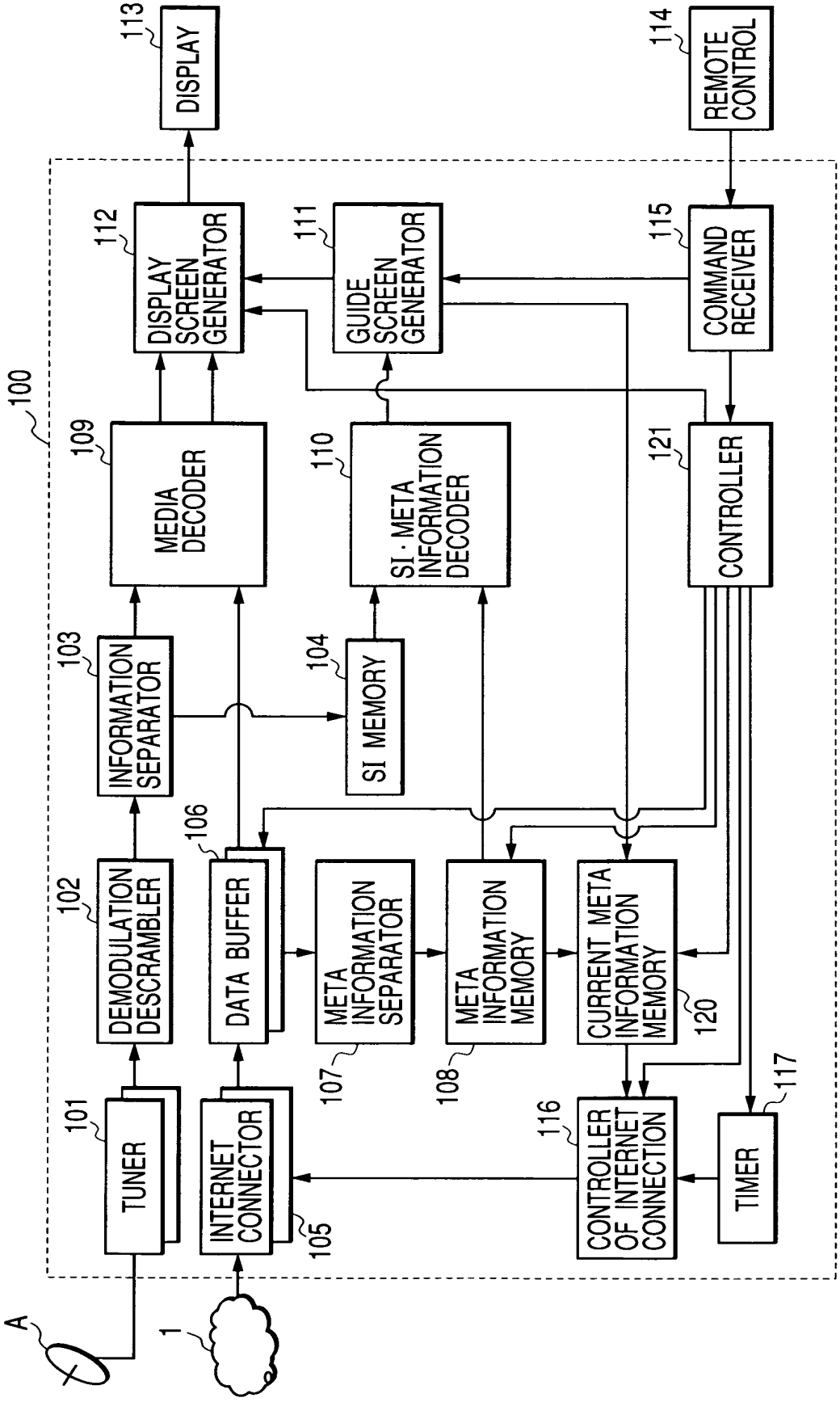
100
A
1
TUNER
101
INTERNET CONNECTOR
105
DEMODULATION DESCRAMBLER
102
DATA BUFFER
106
INFORMATION SEPARATOR
103
SI MEMORY
104
META INFORMATION SEPARATOR
107
META INFORMATION MEMORY
108
CURRENT META INFORMATION MEMORY
120
CONTROLLER OF INTERNET CONNECTION
116
TIMER
117
MEDIA DECODER
109
SI · META INFORMATION DECODER
110
CONTROLLER
121
DISPLAY SCREEN GENERATOR
112
GUIDE SCREEN GENERATOR
111
COMMAND RECEIVER
115
DISPLAY
113
REMOTE CONTROL
114

FIG. 1B

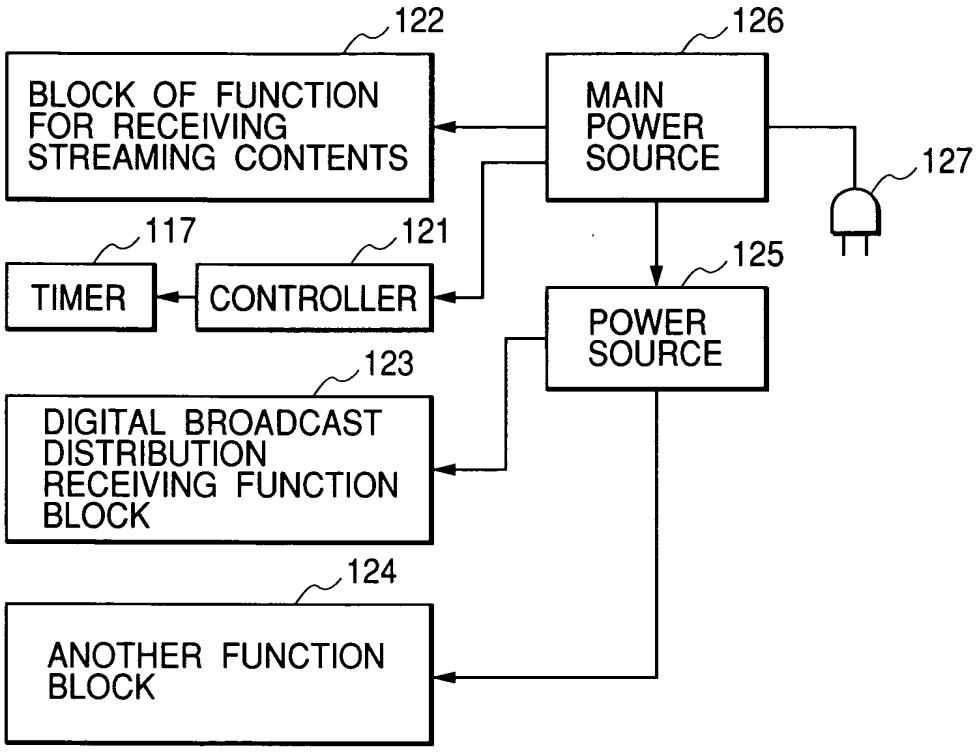
122
BLOCK OF FUNCTION FOR RECEIVING STREAMING CONTENTS
126
MAIN POWER SOURCE
127
117
TIMER
121
CONTROLLER
125
POWER SOURCE
123
DIGITAL BROADCAST DISTRIBUTION RECEIVING FUNCTION BLOCK
124
ANOTHER FUNCTION BLOCK

FIG. 2

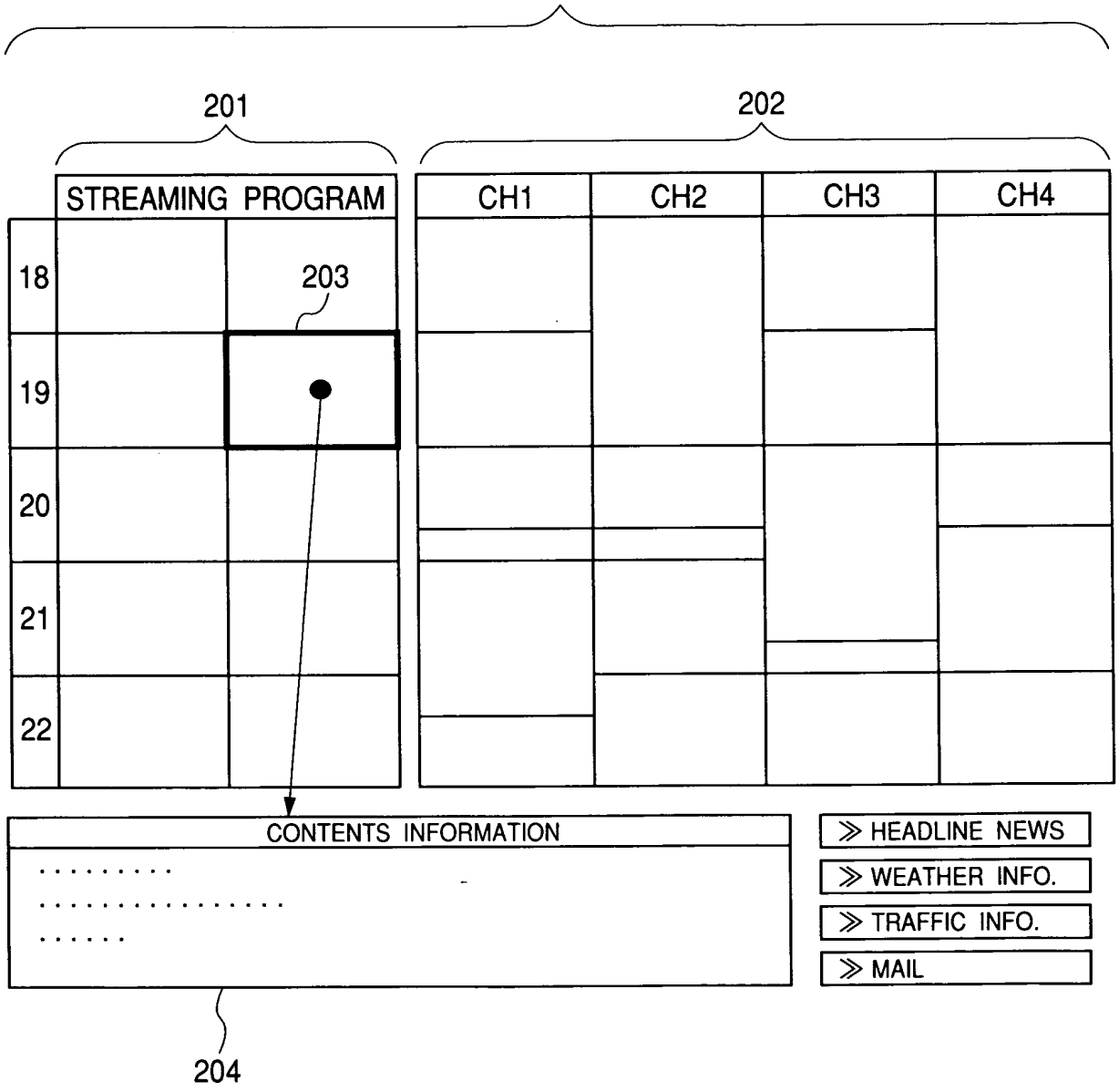
201
202
STREAMING PROGRAM
CH1
CH2
CH3
CH4
18
19
20
21
22
203
CONTENTS INFORMATION
≫ HEADLINE NEWS
≫ WEATHER INFO.
≫ TRAFFIC INFO.
≫ MAIL
204

FIG. 3

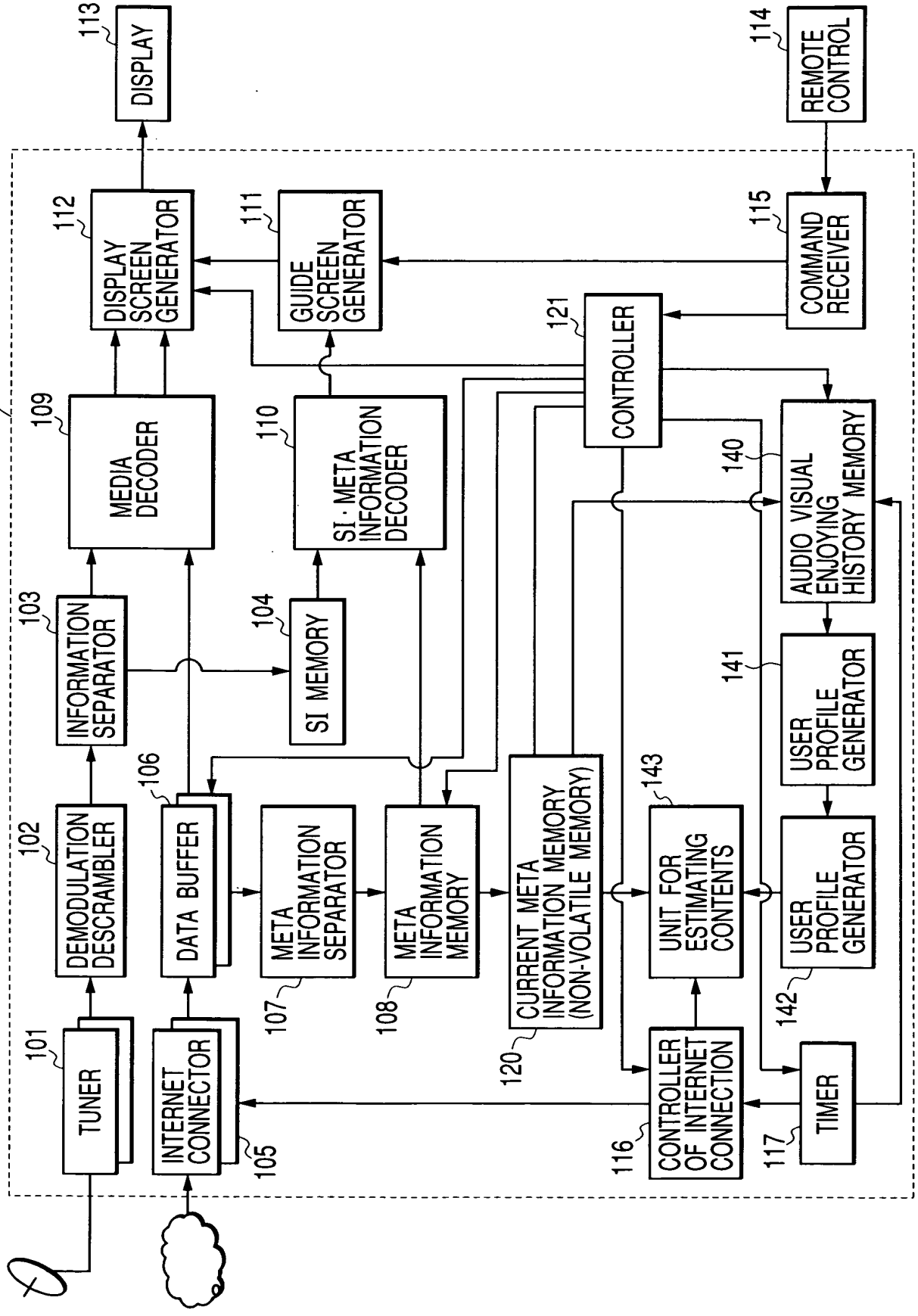
300
113
DISPLAY
114
REMOTE CONTROL
112
DISPLAY SCREEN GENERATOR
111
GUIDE SCREEN GENERATOR
115
COMMAND RECEIVER
121
CONTROLLER
109
MEDIA DECODER
110
SI · META INFORMATION DECODER
140
AUDIO VISUAL ENJOYING HISTORY MEMORY
103
INFORMATION SEPARATOR
104
SI MEMORY
141
USER PROFILE GENERATOR
106
102
DEMODULATION DESCRAMBLER
DATA BUFFER
META INFORMATION SEPARATOR
META INFORMATION MEMORY
CURRENT META INFORMATION MEMORY (NON-VOLATILE MEMORY)
143
UNIT FOR ESTIMATING CONTENTS
101
TUNER
INTERNET CONNECTOR
107
108
120
142
USER PROFILE GENERATOR
105
116
CONTROLLER OF INTERNET CONNECTION
117
TIMER

FIG. 4

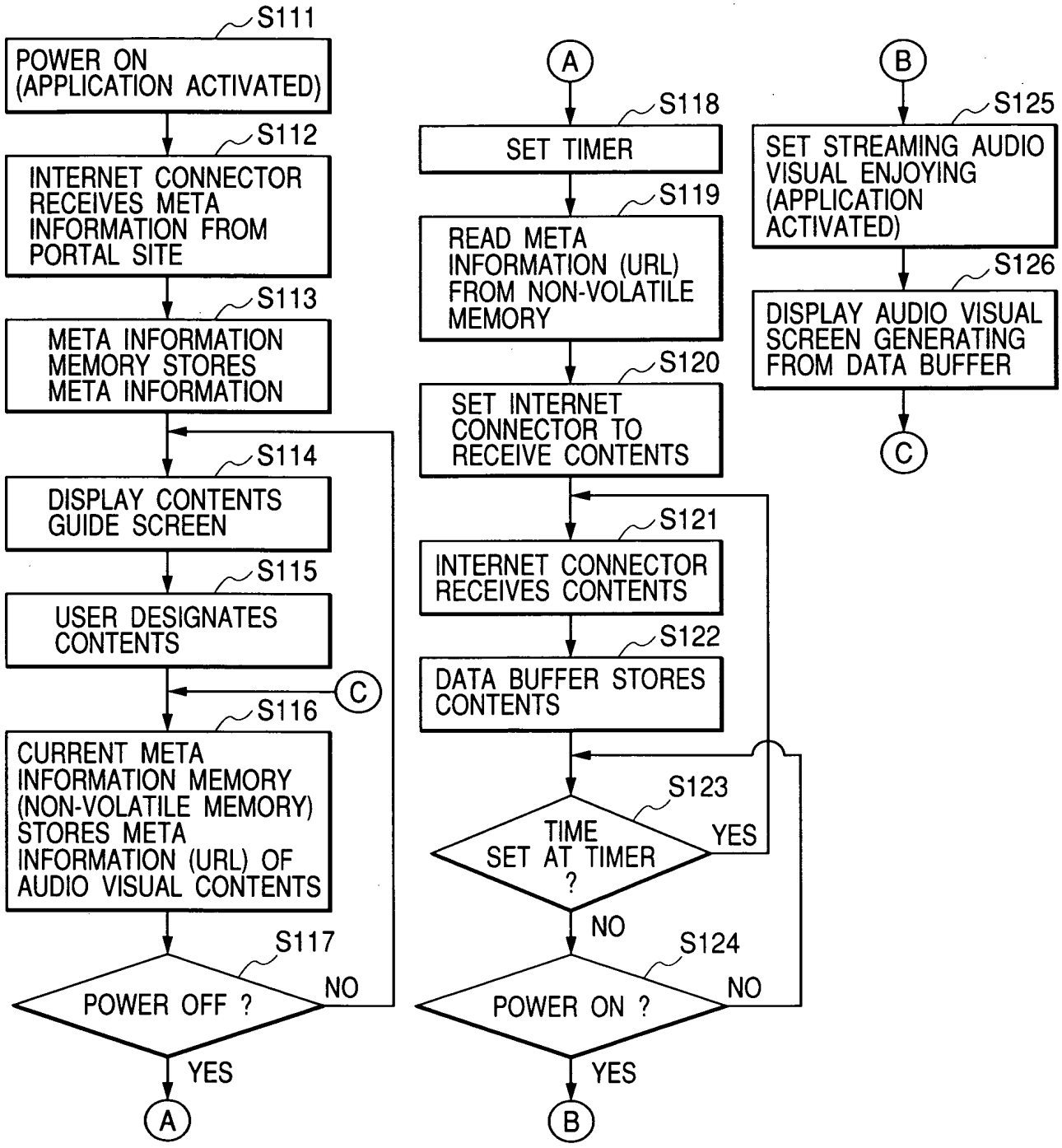
S111
POWER ON (APPLICATION ACTIVATED)
S112
INTERNET CONNECTOR RECEIVES META INFORMATION FROM PORTAL SITE
S113
META INFORMATION MEMORY STORES META INFORMATION
S114
DISPLAY CONTENTS GUIDE SCREEN
S115
USER DESIGNATES CONTENTS
C
S116
CURRENT META INFORMATION MEMORY (NON-VOLATILE MEMORY) STORES META INFORMATION (URL) OF AUDIO VISUAL CONTENTS
S117
POWER OFF ?
NO
YES
A
A
S118
SET TIMER
S119
READ META INFORMATION (URL) FROM NON-VOLATILE MEMORY
S120
SET INTERNET CONNECTOR TO RECEIVE CONTENTS
S121
INTERNET CONNECTOR RECEIVES CONTENTS
S122
DATA BUFFER STORES CONTENTS
S123
TIME SET AT TIMER ?
YES
NO
S124
POWER ON ?
NO
YES
B
B
S125
SET STREAMING AUDIO VISUAL ENJOYING (APPLICATION ACTIVATED)
S126
DISPLAY AUDIO VISUAL SCREEN GENERATING FROM DATA BUFFER
C

FIG. 5

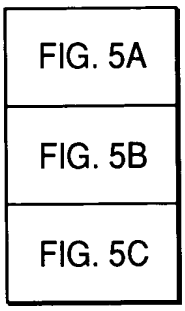
FIG. 5A
FIG. 5B
FIG. 5C

FIG. 5A

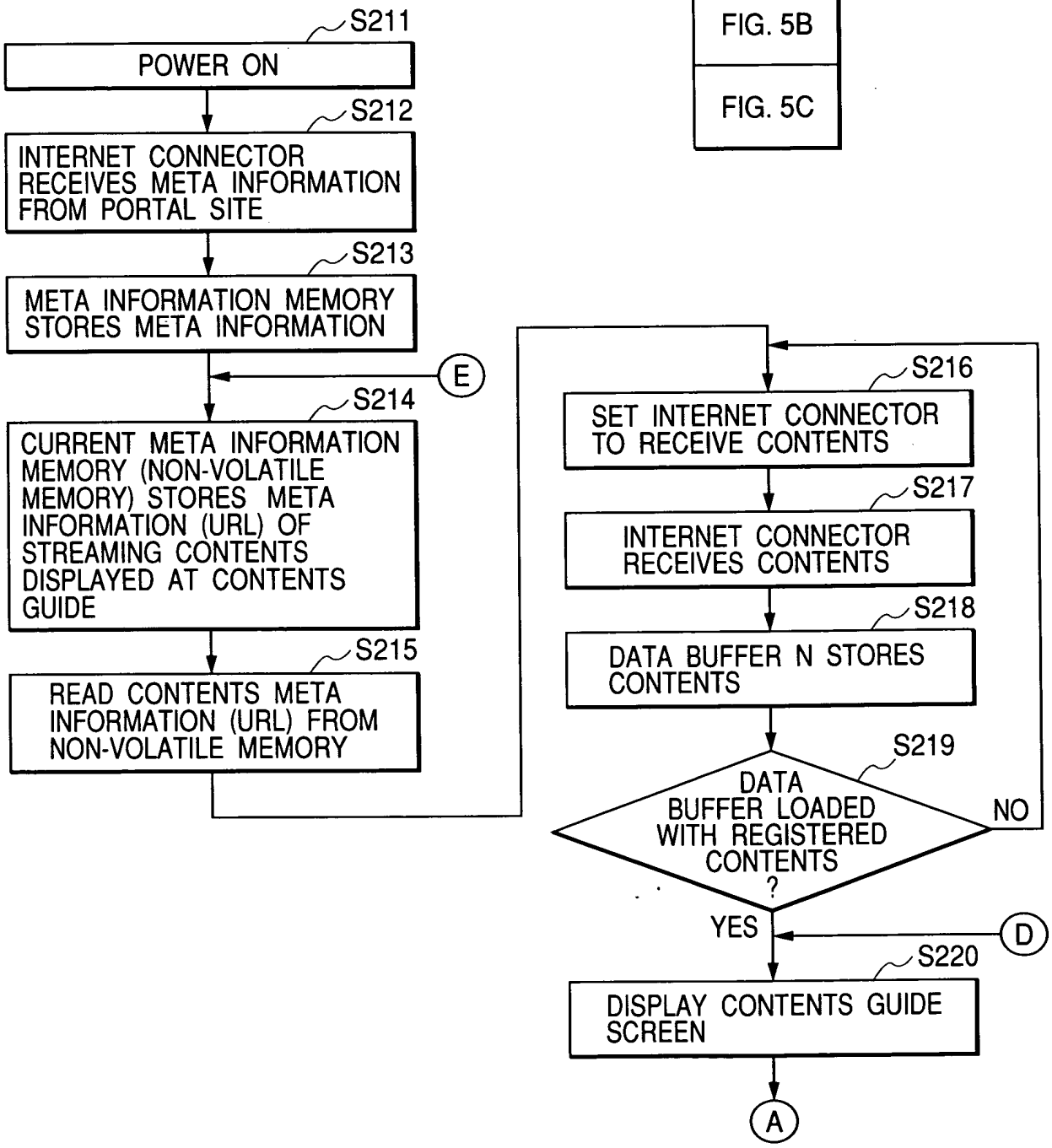
S211
POWER ON
S212
INTERNET CONNECTOR RECEIVES META INFORMATION FROM PORTAL SITE
S213
META INFORMATION MEMORY STORES META INFORMATION
E
S214
CURRENT META INFORMATION MEMORY (NON-VOLATILE MEMORY) STORES META INFORMATION (URL) OF STREAMING CONTENTS DISPLAYED AT CONTENTS GUIDE
S215
READ CONTENTS META INFORMATION (URL) FROM NON-VOLATILE MEMORY
S216
SET INTERNET CONNECTOR TO RECEIVE CONTENTS
S217
INTERNET CONNECTOR RECEIVES CONTENTS
S218
DATA BUFFER N STORES CONTENTS
S219
DATA BUFFER LOADED WITH REGISTERED CONTENTS ?
NO
YES
D
S220
DISPLAY CONTENTS GUIDE SCREEN
A

FIG. 5B

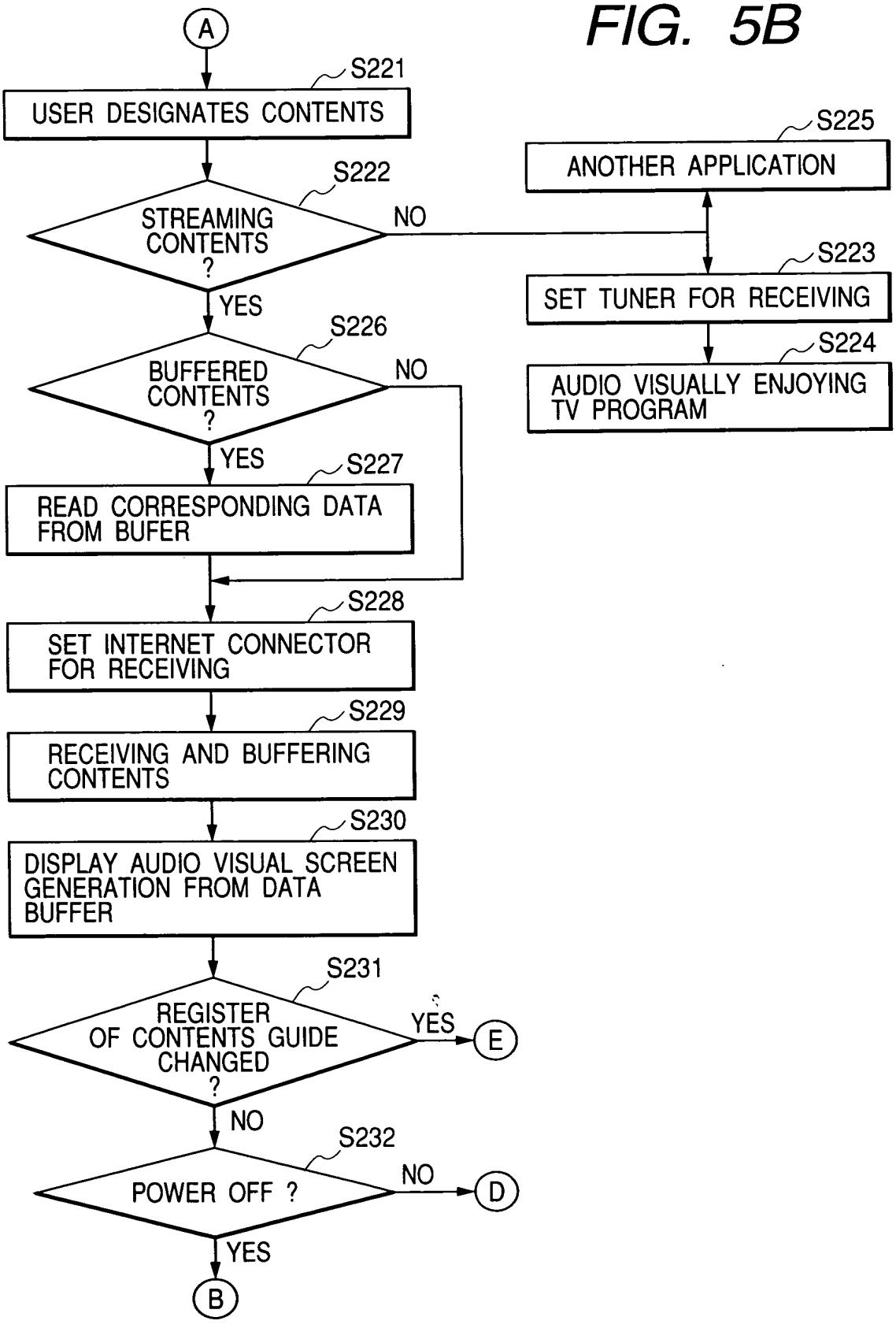
A
S221
USER DESIGNATES CONTENTS
S222
STREAMING CONTENTS ?
NO
YES
S225
ANOTHER APPLICATION
S223
SET TUNER FOR RECEIVING
S224
AUDIO VISUALLY ENJOYING TV PROGRAM
S226
BUFFERED CONTENTS ?
NO
YES
S227
READ CORRESPONDING DATA FROM BUFER
S228
SET INTERNET CONNECTOR FOR RECEIVING
S229
RECEIVING AND BUFFERING CONTENTS
S230
DISPLAY AUDIO VISUAL SCREEN GENERATION FROM DATA BUFFER
S231
REGISTER OF CONTENTS GUIDE CHANGED ?
YES
E
NO
S232
POWER OFF ?
NO
D
YES
B

FIG. 5C

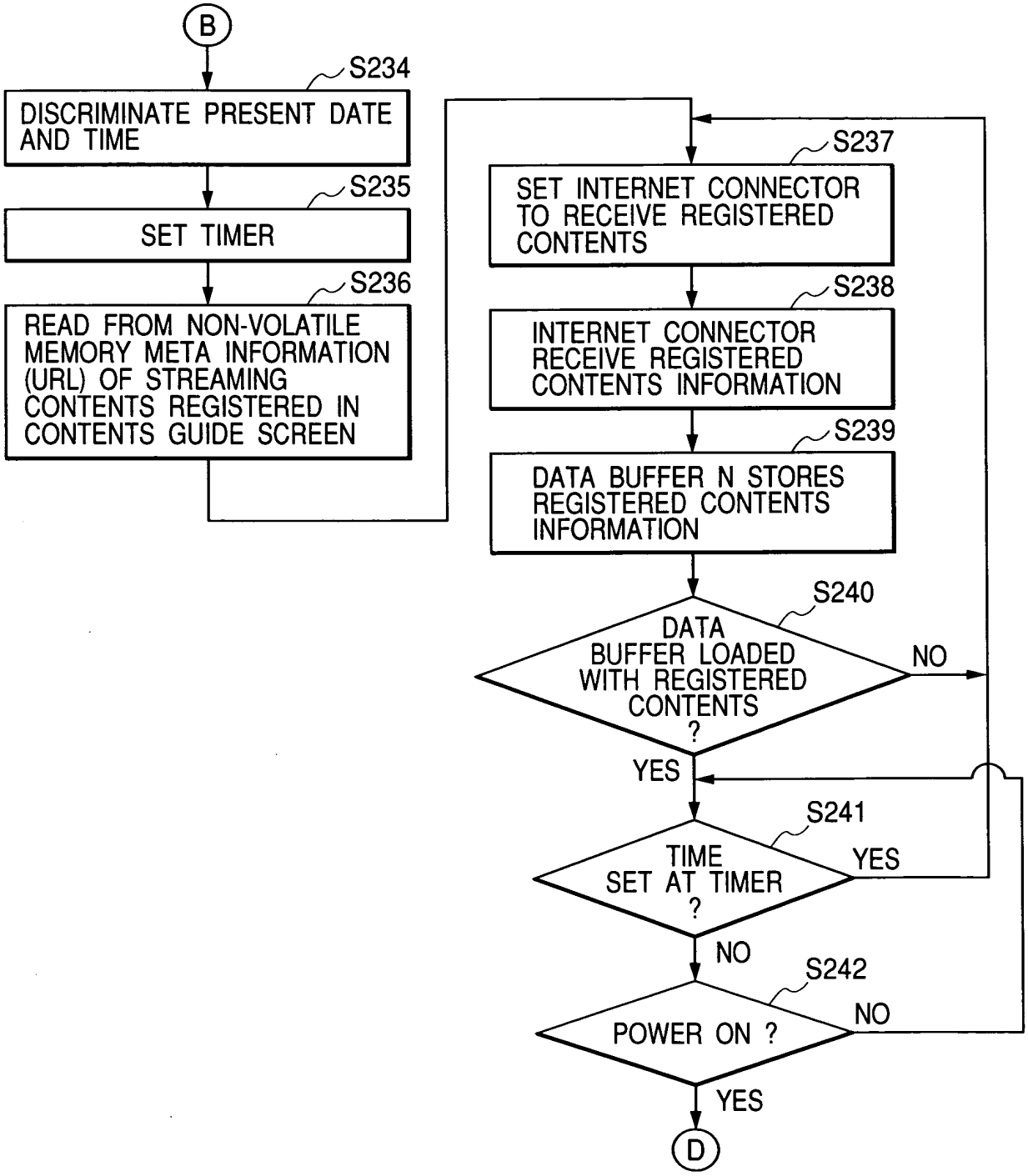
B
S234
DISCRIMINATE PRESENT DATE AND TIME
S235
SET TIMER
S236
READ FROM NON-VOLATILE MEMORY META INFORMATION (URL) OF STREAMING CONTENTS REGISTERED IN CONTENTS GUIDE SCREEN
S237
SET INTERNET CONNECTOR TO RECEIVE REGISTERED CONTENTS
S238
INTERNET CONNECTOR RECEIVE REGISTERED CONTENTS INFORMATION
S239
DATA BUFFER N STORES REGISTERED CONTENTS INFORMATION
S240
DATA BUFFER LOADED WITH REGISTERED CONTENTS ?
NO
YES
S241
TIME SET AT TIMER ?
YES
NO
S242
POWER ON ?
NO
YES
D

FIG. 6

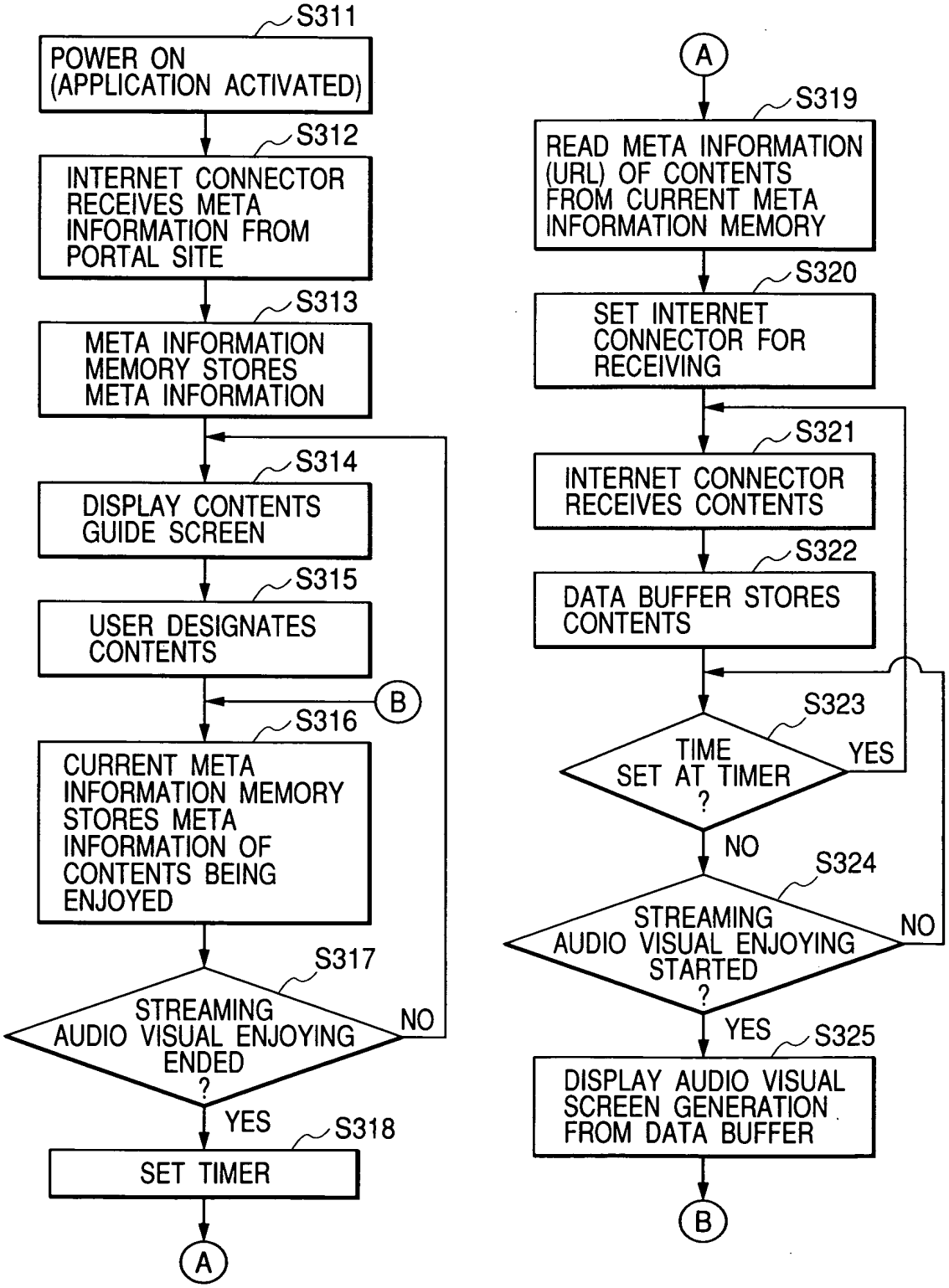
S311
POWER ON (APPLICATION ACTIVATED)
S312
INTERNET CONNECTOR RECEIVES META INFORMATION FROM PORTAL SITE
S313
META INFORMATION MEMORY STORES META INFORMATION
S314
DISPLAY CONTENTS GUIDE SCREEN
S315
USER DESIGNATES CONTENTS
B
S316
CURRENT META INFORMATION MEMORY STORES META INFORMATION OF CONTENTS BEING ENJOYED
S317
STREAMING AUDIO VISUAL ENJOYING ENDED ?
NO
YES
S318
SET TIMER
A
A
S319
READ META INFORMATION (URL) OF CONTENTS FROM CURRENT META INFORMATION MEMORY
S320
SET INTERNET CONNECTOR FOR RECEIVING
S321
INTERNET CONNECTOR RECEIVES CONTENTS
S322
DATA BUFFER STORES CONTENTS
S323
TIME SET AT TIMER ?
YES
NO
S324
STREAMING AUDIO VISUAL ENJOYING STARTED ?
NO
YES
S325
DISPLAY AUDIO VISUAL SCREEN GENERATION FROM DATA BUFFER
B

FIG. 7

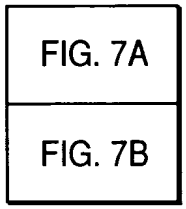
FIG. 7A
FIG. 7B

FIG. 7A

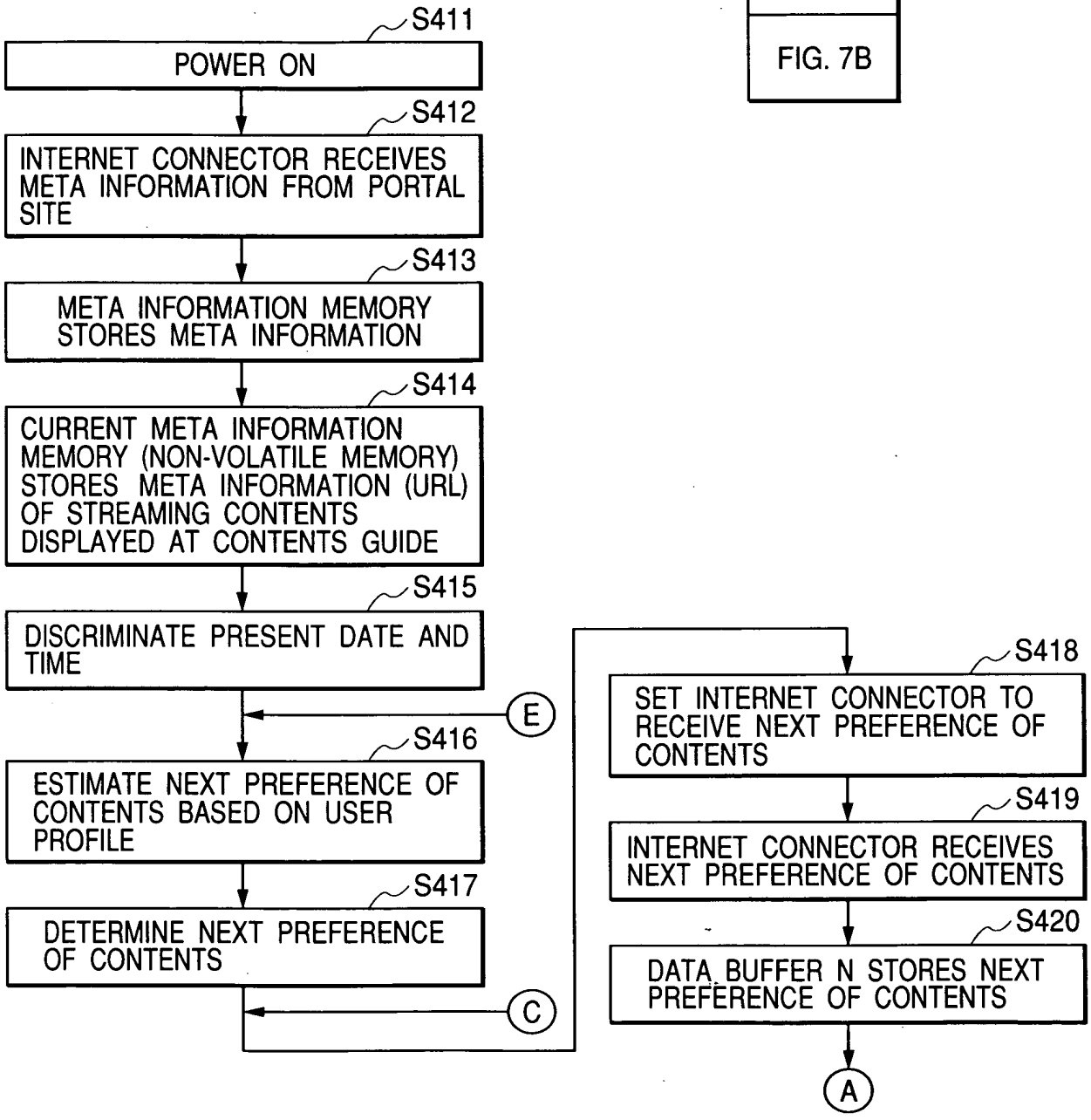
S411
POWER ON
S412
INTERNET CONNECTOR RECEIVES META INFORMATION FROM PORTAL SITE
S413
META INFORMATION MEMORY STORES META INFORMATION
S414
CURRENT META INFORMATION MEMORY (NON-VOLATILE MEMORY) STORES META INFORMATION (URL) OF STREAMING CONTENTS DISPLAYED AT CONTENTS GUIDE
S415
DISCRIMINATE PRESENT DATE AND TIME
E
S416
ESTIMATE NEXT PREFERENCE OF CONTENTS BASED ON USER PROFILE
S417
DETERMINE NEXT PREFERENCE OF CONTENTS
C
S418
SET INTERNET CONNECTOR TO RECEIVE NEXT PREFERENCE OF CONTENTS
S419
INTERNET CONNECTOR RECEIVES NEXT PREFERENCE OF CONTENTS
S420
DATA BUFFER N STORES NEXT PREFERENCE OF CONTENTS
A

FIG. 7B

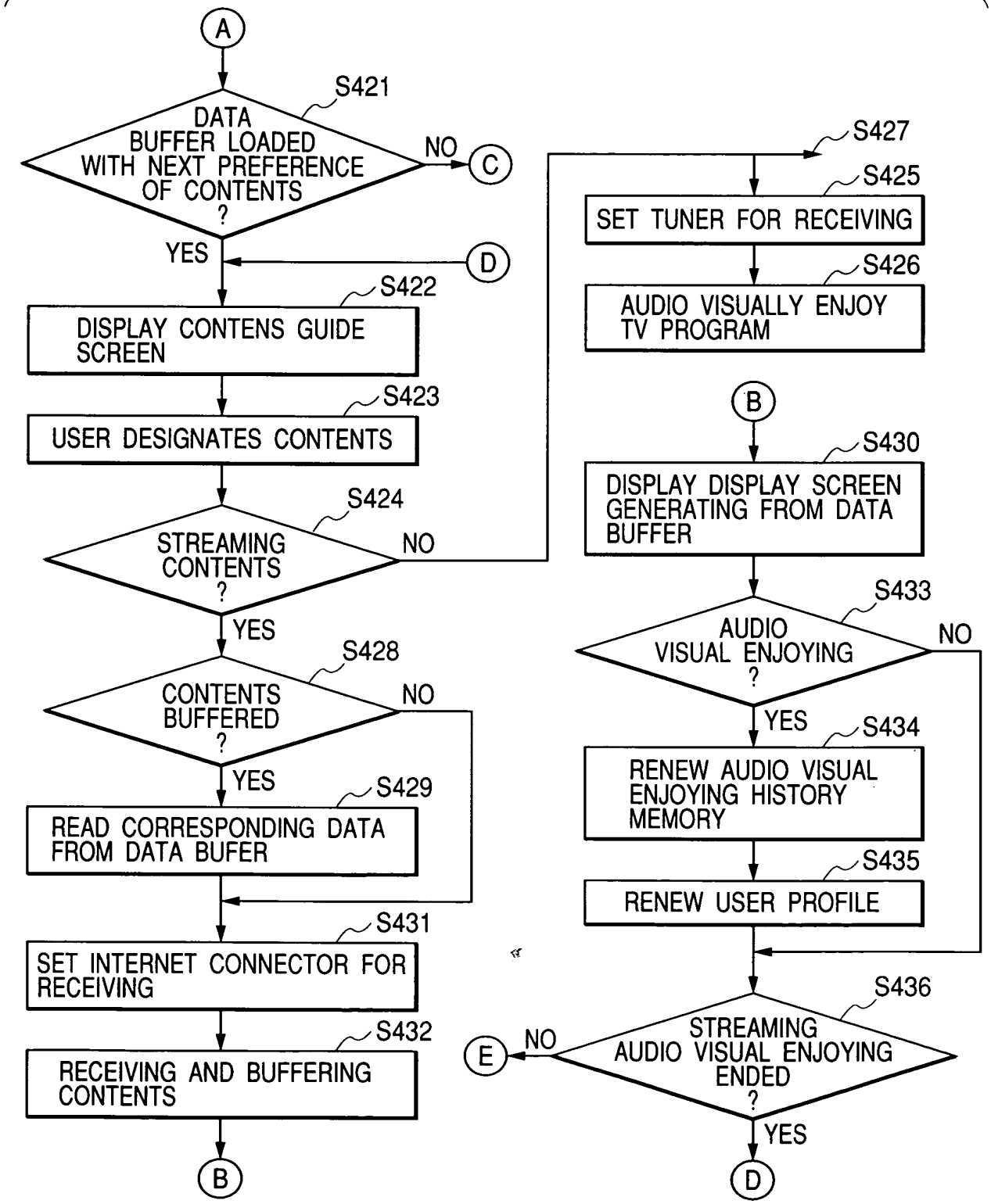
A
S421
DATA BUFFER LOADED WITH NEXT PREFERENCE OF CONTENTS ?
NO
C
YES
D
S422
DISPLAY CONTENS GUIDE SCREEN
S423
USER DESIGNATES CONTENTS
S424
STREAMING CONTENTS ?
NO
YES
S428
CONTENTS BUFFERED ?
NO
YES
S429
READ CORRESPONDING DATA FROM DATA BUFER
S431
SET INTERNET CONNECTOR FOR RECEIVING
S432
RECEIVING AND BUFFERING CONTENTS
B
S427
S425
SET TUNER FOR RECEIVING
S426
AUDIO VISUALLY ENJOY TV PROGRAM
B
S430
DISPLAY DISPLAY SCREEN GENERATING FROM DATA BUFFER
S433
AUDIO VISUAL ENJOYING ?
NO
YES
S434
RENEW AUDIO VISUAL ENJOYING HISTORY MEMORY
S435
RENEW USER PROFILE
S436
STREAMING AUDIO VISUAL ENJOYING ENDED ?
NO
E
YES
D

FIG. 8

out_URL	CRID	Cat	Date	Day	Time	Date_Stamp	Reo	Freq
http://ServerA/ .../filename1.xxx	AAA/Sport	2	-1	6	19	20010428	0	10
http://ServerB/ .../filename19.yyy	BBB/Sport	2	-1	1	20	20010422	1	5
http://ServerE/ .../filename5	EEE/Variety	4	-1	3	22	20010425	0	2
http://ServerA/ .../filename9	AAA/Quiz	12	-1	3	23	20010502	0	8
http://ServerG/ .../filename24	GGG/News	1	-1	-1	07	20010428	0	20
http://ServerK/ .../filename28	KKK/TalkShow	20	-1	4	13	20010503	0	2
http://ServerA/ .../filename5	AAA/Drama	16	-1	6	22	20010505	0	4
http://ServerC/ .../filename3	CCC/Drama	16	-1	7	09	20010429	1	2
. . . . .								
. . . . .								

cnt_URL	URL OF AUDIO VISUALLY ENJOYED CONTENTS
CRID	ID OF AUDIO VISUALLY ENJOYED CONTENTS
Cat ID	CATEGORIES OF CONTENTS ENJOYED (NEWS: 1, SPORTS: 2, DRAMA: 16, ···)
Date	DATES [1-31]
Day	A DAY OF WEEK [1-7 1: MON, 2: TUE, ..., 7: SUN]
Time	TIME [0-23]
Date_Stamp	RENEWAL DATE [yyyy/mm/dd]
Rec	RECORD [0: PLAY, 1: RECORD]
Freq	FREQUENCY [xx TIMES]

REFERENCE: rtsp://realserver/media/video1.rm (IN CASE OF RealServer)
mms://nsserver/content/video1.asf (IN CASE OF Windows Media Server)

.xxx/.yyy: EXTENSION OF STREAMING CONTENTS
e.g. .asf: Windows Media FILE, rm: Real Video FILE etc.